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INFORMATION DISCLOSURE STATEMENT Title: Method and Apparatus for Increasing the Dynamic Range and Accuracy of Binding Assays				Atty Dkt: 3501.115 (2064-181)		Serial No. 10/032,790	
				Applicant: Daniel A. Keys, <i>et al.</i>			
Filing Date: 10-24-01				Group			
<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; transform: rotate(-45deg); transform-origin: center;"> RECEIVED FEB 05 2002 Technology Center 2100 </div> <div style="text-align: center;"> JAN 31 2002 U.S. PATENT DOCUMENTS </div> </div>							
Examiner's Initial	Patent Number	Date	Name	Class	Sub-Class	Filing Date	
GC	AA1	3,791,932	2/12/74	Schuurs, <i>et al.</i>	195	103.5	1/27/72
GC	AB1	4,016,043	4/5/77	Schuurs, <i>et al.</i>	195	103.5	9/4/75
GC	AC1	4,185,084	1/22/80	Mochida, <i>et al.</i>	424	1	10/3/77
GC	AD1	4,243,749	1/6/81	Sadeh, <i>et al.</i>	435	7	3/16/78
GC	AE1	4,313,734	2/2/82	Leuversing	23	230	7/13/79
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Sub-Class	Translation Yes/No
GC	AL1	EP 177,191	11/22/90	EUROPEAN	G01N	33/537	NO
GC	AM1	GB 2,084,317		UNITED KINGDOM	G01N	33/54	NO
	AN1						
OTHERS, including Author, Title, Date, Pertinent Pages, etc.							
GC	AR1	Bass, D.A. <i>et al.</i> "Flow cytometric studies of oxidative product formation by neutrophils: a graded response to membrane stimulation." <i>J. Immunol.</i> 130: 1910-1917.					
/	AS1	Bode, W. <i>et al.</i> 1989, "Human leukocyte and porcine pancreatic elastase: X-ray crystal structures, mechanism, substrate specificity and mechanism-based inhibitors," <i>Biochem.</i> 28:1951-1963.					
/	AT1	Coates, P.M. <i>et al.</i> , 1975, "A preliminary genetic interpretation of the esterase isozymes of human tissues," <i>Ann. Hum. Genet. Lond.</i> 39: 1-20.					
/	AR2	Crockard, A. <i>et al.</i> , 1982, "Cytochemistry of acid hydrolases in chronic B- and T-cell leukemias," <i>Am. J. Clin. Pathol.</i> 78:437-444.					
GC	AS2	Dujardin F.H., <i>et al.</i> , "Quantitative assessment of cortical bone remodelling from routine radiographs of total hip arthroplasty," <i>Med. Eng. Phys.</i> 1996 Sep; 18(6): 489-94.					
Examiner: <i>Dany Court</i>				Date Considered 4-3-03			
Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.							

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(2064-181)

Serial No.
10/032,790

Title: **Method and Apparatus for Increasing the Dynamic Range and Accuracy of Binding Assays**

Applicant:
Daniel A. Keys, *et al.*

Filing Date:
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h	AA2	4,373,932	2/15/83	Gribnau, <i>et al.</i>	436	501	1/2/81
	AB2	4,401,764	8/30/83	Smith	436	500	2/2/81
	AC2	4,661,444	4/28/87	Li	435	7	3/29/84
	AD2	4,746,631	5/24/88	Clagett	436	518	5/9/85
h	AE2	4,810,096	3/7/89	Russell, <i>et al.</i>	356	436	4/8/87

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Sub-Class	Translation Yes/No

OTHERS, including Author, Title, Date, Pertinent Pages, etc.

h	AT2	Ferrer-Lopez, P. <i>et al.</i> , "Heparin Inhibits Neutrophil-Induced Platelet Activation Via Cathepsin", <i>J. Lab Clin. Med.</i> 119(3), 231-239 (1992).
h	AR3	Fleischer, B., 1994, "CD26: a surface protease involved in T-cell activation," <i>Immunol. Today</i> 15: 180-184.
	AS3	Fowler A., <i>et al.</i> , "A multi-modality assay platform for ultra-high throughput screening," <i>Curr. Pharm. Biotechnol.</i> 2000 Nov;1(3):265-81.
	AT3	Gartner, T.K. <i>et al.</i> , 1985, "The tetrapeptide analogue of the alpha chain and decapeptide analogue of the gamma chain of fibrinogen bind to different sites on the platelet fibrinogen receptor," <i>Blood</i> 66 Suppl 1: 305a.
h	AR4	Hegen, M. <i>et al.</i> , 1993, "Enzymatic activity of CD26 (dipeptidylpeptidase IV) is not required for its signalling function in T cells," <i>Immunobiology</i> 189: 483-493.

Examiner: Gary Counts Date Considered: 7-3-03

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Examiner's Initial	Patent	Date	Name	Class	Sub-Class	Filing Date	
bc	AA3	5,198,670	3/30/93	VanCauter, et al.	250	328	9/29/89
bc	AB3	5,306,468	4/26/94	Anderson, et al.	422	101	7/19/91
	AC3	5,501,985	3/26/96	Baughner, et al.	436	518	4/21/94
	AD3	5,563,036	10/8/96	Peterson, et al.	435	6	4/29/94
bc	AE3	5,599,668	2/4/97	Stimpson, et al.	435	6	9/22/94

FOREIGN PATENT DOCUMENTS							
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OTHERS, including Author, Title, Date, Pertinent Pages, etc.		
bc	AS4	Hoffmann, T. <i>et al.</i> 1993, "Dipeptidyl peptidase IV (CD 26) and aminopeptidase N (CD 13) catalyzed hydrolysis of cytokines and peptides with N-terminal cytokine sequences," <i>FEBS Letters</i> 336: 61-64.
	AT4	Hohn, P.A. <i>et al.</i> , 1989, "Genomic organization and chromosomal localization of the human cathepsin G gene," <i>J. Biol. Chem.</i> 264: 13412-13419.
	AR5	Houze T.A., <i>et al.</i> , "Detection of thymidylate synthase gene expression levels in formalin-fixed paraffin embedded tissue by semiquantitative, nonradioactive reverse transcriptase polymerase chain reaction," <i>Tumour Biol.</i> 1997;18(1):53-68.
	AS5	Jongkind, J.F. <i>et al.</i> , 1986, "Detection of acid-b-galactosidase activity in viable human fibroblasts by flow cytometry," <i>Cytometry</i> 7:463-466.
	AT5	Kankaanranta, H. <i>et al.</i> , 1994, "Effects of non-steroidal anti-inflammatory drugs on polymorphonuclear leukocyte functions in vitro: focus on fenamates," <i>Naunyn-Schmiedeberg's Arch Pharmacol.</i> 350:685-691.
bc	AR6	Kohen, E. <i>et al.</i> , 1993, "An in situ study of beta-glucosidase activity in normal and gaucher fibroblasts with fluorogenic probes," <i>Cell Biochem. and Function</i> 11:167-177.

Examiner: <i>Dary Gault</i>	Date Considered 4-3-02
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U.S. PATENT DOCUMENTS							
Examiner's Initial	Patent Number	Date	Name	Class	Sub-Class	Filing Date	
be	AA4	5,627,080	5/6/97	Cheng, et al.	436	534	7/29/94
	AB4	5,633,141	5/27/97	Lee, et al.	435	7.2	4/7/95
	AC4	5,679,525	10/21/97	Peterson, et al.	435	6	7/17/96
	AD4	5,691,147	11/25/97	Draetta, et al.	435	7.1	6/2/94
be	AE4	5,698,411	12/16/97	Lucas, et al.	435	29	5/18/95

FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Sub-Class	Translation Yes/No	

OTHERS, including Author, Title, Date, Pertinent Pages, etc.		
be	AS6 ✓	Kojima, K. <i>et al.</i> , 1979, "A new and highly sensitive fluorescence assay for collagenase-like peptidase activity," <i>Anal. Biochem.</i> 100: 43-50.
	AT6 ✓	Li, C.Y. <i>et al.</i> , 1970, "Acid phosphatase isoenzyme in human leukocytes in normal and pathologic conditions," <i>J. Histochem. Cytochem.</i> 18:473-481.
	AR7 ✓	Manzella S.M., <i>et al.</i> "A biphasic radiometric assay of glycogenin using the hydrophobic acceptor n-dodecyl-beta-D-maltoside," <i>Anal. Biochem.</i> 1994 Feb 1;216(2):383-91.
	AS7 ✓	McDonald, J.A. <i>et al.</i> , 1980, "Degradation of fibronectin by human leukocyte elastase," <i>J. Biol. Chem.</i> 255: 8848-8858.
	AT7 ✓	Mentlein, R. <i>et al.</i> , H. R., "Influence of Pregnancy on Dipeptidyl Peptidase IV Activity (CD26 Leukocyte Differentiation Antigen) of Circulating Lymphocytes", <i>Eur. J. Clin. Chem. Clin. Biochem.</i> , 29, 477-480 (1991).
be	AR8 ✓	Messler P., <i>et al.</i> , "Instrumentation for multiwavelengths excitation imaging," <i>J. Neurosci. Methods</i> 1996 Nov;69(2):137-47).

Examiner: <i>Dany Counts</i>	Date Considered 4-3-03
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Examiner's Initial	Patent Number	Date	Name	Class	Sub-Class	Filing Date	
GC	AA5	5,747,352	5/5/98	Yan, et al.	436	533	5/23/94
	AB5	5,754,229	5/19/98	Elabd	348	319	11/14/95
	AC5	5,772,926	6/30/98	Akhavan-Tafti	252	700	5/13/97
	AD5	5,811,526	9/22/98	Davidson	530	391.3	5/23/95
	AE5	5,843,651	12/1/98	Stimpson, et al.	435	6	5/2/95

FOREIGN PATENT DOCUMENTS							
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OTHERS, including Author, Title, Date, Pertinent Pages, etc.		
GC	AS8 ✓	Rotman, B. <i>et al.</i> , 1963, "Fluorogenic substrates for b-D-galactosidases and phosphatases derived from fluorescein (3,6-dihydroxyfluoran) and its monomethyl ether," <i>Proc. Nat. Acad. Sci. USA</i> 50:1-6.
	AT8 ✓	Royer, G. <i>et al.</i> , "Immobilized Derivatives of Leucine Aminopeptidase and Aminopeptidase M.," <i>J. Biol. Chem.</i> 248(5), 1807-1812 (1973).
	AR9 ✓	Ruiz, P. <i>et al.</i> , 1996, "Cytofluorographic evidence that thymocyte dipeptidyl peptidase IV (CD26) activity is altered with stage of ontogeny and apoptotic status," <i>Cytometry</i> 23: 322-329.
	AS9 ✓	Sanderink, G.J., <i>et al.</i> , 1988, "Human Aminopeptidases: A Review of the Literature. <i>J. Clin. Chem. Clin. Biochem.</i> 26: 795-807.
	AT9 ✓	Schon, E. <i>et al.</i> , "The role of dipeptidyl peptidase IV in human T lymphocyte activation. Inhibitors and antibodies against dipeptidyl peptidase IV suppress lymphocyte proliferation and immunoglobulin synthesis in vitro," <i>Eur. J. Immunol.</i> 1987 Dec;17(12):1821-6.

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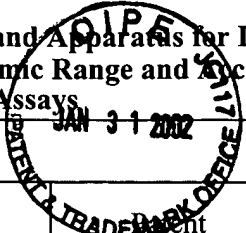
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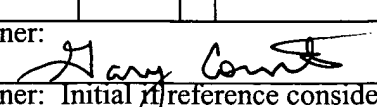
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lc	AA6	5,851,778	12/22/98	Oh, et al.	435	7.9	4/2/97
	AB6	5,876,935	3/2/99	Pankratz, et al.	435	6	1/8/97
	AC6	5,965,736	10/21/99	Akhavan-Tafti	548	110	12/9/98
	AD6	5,976,822	11/2/99	Landrum, et al.	435	23	8/20/97
	AE6	6,045,727	4/4/00	Akhavan-Tafti, et al	252	700	1/15/97
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Sub-Class	Translation Yes/No	
OTHERS, including Author, Title, Date, Pertinent Pages, etc.							
lc	AR10	Stein, R.L. <i>et al.</i> 1987, "Catalysis by human leukocyte elastase: Mechanistic insights into specificity requirements," <i>Biochem.</i> 26:1301-1305.					
	AS10	Stein, R.L. <i>et al.</i> 1987, "Catalysis by human leukocyte elastase: Proton inventory as a mechanistic probe," <i>Biochem.</i> 26:1305-1314.					
	AT10	Tanaka, T. <i>et al.</i> , 1993, "The costimulatory activity of the CD26 antigen requires dipeptidyl peptidase IV enzymatic activity," <i>Proc. Natl. Acad. Sci. USA</i> 90: 4586-4590.					
	AR11	Thiele, D.L. <i>et al.</i> , 1990, "Mechanism of L-leucyl-L-leucine methyl ester-mediated killing of cytotoxic lymphocytes: Dependence on a lysosomal thiol protease, dipeptidyl peptidase I, that is enriched in these cells," <i>Proc. Natl. Acad. Sci. USA</i> 87: 83-87.					
lc	AS11	Weiss, S.J. 1989, "Tissue destruction by neutrophils," <i>N. Eng. J. Med.</i> 320: 365-376.					
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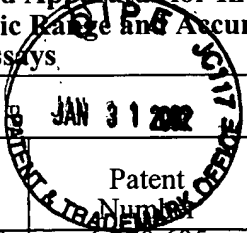
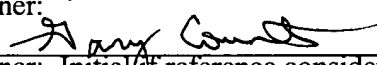
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GC	AA7	6,045,991	4/4/00	Akhavan-Tafti	435	4	5/3/99
	AB7	6,139,782	10/31/00	Akhavan-Tafti, et al	252	700	7/21/99
	AC7	6,177,958	1/23/01	Anderson	348	362	3/11/98
	AD7	6,212,291	4/3/01	Wang, et al.	382	132	1/29/98
	AE7	6,218,137	4/17/01	Akhavan-Tafti, et al	435	21	3/31/00
FOREIGN PATENT DOCUMENTS							
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OTHERS, including Author, Title, Date, Pertinent Pages, etc.							
GC	AT11	Whitlock, C.A., <i>et al.</i> , 1987. "Bone marrow stromal cell lines with lymphopoietic activity express high levels of a pre-B neoplasia-associated molecule," <i>Cell</i> 48: 1009-1021.					
GC	AR12	Woessner, J.F. Jr., 1991, "Matrix metalloproteinases and their inhibitors in connective tissue remodeling," <i>FASEB J.</i> 5: 2145-2154.					
GC	AS12	Wu, Q. <i>et al.</i> , 1991. "Aminopeptidase A activity of the murine B-lymphocyte differentiation antigen BP-1/6C3," <i>Proc. Natl. Acad. Sci, USA</i> 88: 676-680.					
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GR	AB8	6,090,571	7/18/00	Akhavan-Tafti, et al	435	21	7/21/99
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